

PISTON RING ASSEMBLY

Abstract

A piston ring assembly includes an upper ring, a lower ring and an expander disposed between the upper and lower rings. When assembled, the piston ring assembly is positioned with a groove of a piston. During down stroke of the piston, the upper and lower rings radially compress. This radial compression induces axial expansion of the expander, thereby urging the upper and lower rings against upper and lower surfaces of the groove. The piston ring assembly provides a seal between not only an outer periphery and a wall of a cylinder, but also between the piston ring assembly and the annular groove of the piston to prevent escape of oil and gases.